

Notice of Allowability

Application No.

10/004,726

Examiner

Nikolas J. Uhler

Applicant(s)

TANAKA ET AL.

Art Unit

1773

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/12/2004.
2. ☒ The allowed claim(s) is/are 7-17.
3. ☒ The drawings filed on 05 December 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/809,475.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 03102004 .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Joe Fox on 3/5/2004.

The application has been amended as follows:

Claim 11: line 13: "Tc1>Tc2>Tc3<Tc4 and Tc1>Tc4," has been deleted and -- Tc1>Tc2, Tc1>Tc3, Tc1>Tc4, Tc3<Tc2, and Tc3<Tc4, -- has been inserted between "satisfy relationships of" (line 12) and "and the intermediate layer is made of" (line 13).

Reasons for Allowance

2. The following is an examiner's statement of reasons for allowance: The closest prior art to that of the instant claims are US6117544 to Hirokane and US 5662988 to Nakayama. While Hirokane discloses a recording medium having 4 magnetic layers exhibiting the required magnetic orientations in the required order, Hirokane teaches that the reproduction assist layer (Hirokane's second layer, applicant's claimed reproduction layer) should have a curie temperature higher than that of the reproduction layer (Hirokane's first layer, applicant's claimed mask layer). Thus, Hirokane does not teach the required Curie temperature relationship in combination with the required structure. There is no teaching or motivation in the prior art that would lead one of ordinary skill to alter the structure of Hirokane such that the curie temperature of

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Hirokane's 1st magnetic layer (Hirokane's reproduction layer, applicant's claimed mask layer) exhibits a higher curie temperature than the recording, reproducing, and intermediate layers.

3. Further, Nakayama discloses a magneto-optical recording medium having four magnetic layers wherein the 1st through 4th magnetic layers meet the applicant's magnetization direction requirements. Nakayama fails to teach or render obvious a structure wherein the 2nd layer is a read-out layer. Given the knowledge in the prior art regarding the functional differences between a reproducing layer (applicant's claim 1, layer 2) and a memory layer (Nakayama's layer 2) (see page 6, line 6-page, line 24 of the instant specification for a discussion of the functional characteristics of reproducing and recording layers in magneto-optical media), one of ordinary skill in the art would not recognize these layers to be functionally equivalent, and would not have been motivated to utilize the writing layer of Nakayama (Nakayama's layer 2) as a read out layer (applicant's claim 1, layer 2).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikolas J. Uhler whose telephone number is 571-272-1517. The examiner can normally be reached on Mon-Fri 7:30 am - 5 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J. Thibodeau can be reached on 571-272-1516. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Paul Thibodeau
Supervisory Patent Examiner
Technology Center 1700